AMENDMENTS TO THE CLAIMS

1.   (Previously Presented) A diagnosis support system for diabetes comprising:

a data input device;

a display device; and

a controller that performs operations comprising:

entering diagnostic data including clinical testing data and clinical findings of a patient by the data input device;

analyzing a pathophysiologic condition of diabetes of the patient by comparing the diagnostic data and predetermined criteria of analysis;

generating diagnosis support information based on the diagnostic data and criteria of diagnosis predetermined for each analyzed pathophysiologic condition,

generating a biological model which has a patient-specific biological parameter of diabetes using the entered diagnostic data and the pathophysiologic condition of the patient,

simulating a pathophysiologic condition after treatment by giving the generated biological model a predetermined treatment based on a virtual treatment policy, and

outputting the pathophysiologic condition of the patient, the generated diagnosis support information and the simulated pathophysiologic condition after treatment on the display device.

2.   (Previously Presented) A diagnosis support system for diabetes according to Claim 1, wherein the criteria of analysis comprise determination of peripheral insulin resistance, determination of hepatic glucose production, determination of glucose toxicity as a result of being subjected to hyperglycemia for a long time, and determination of decrease of insulin secretion, and the analyzing operation is performed by analyzing the pathophysiologic condition of diabetes by calculating evaluation values obtained from each criterion of analysis, and comparing the obtained evaluation values.

3.   (Previously Presented) A diagnosis support system for diabetes according to Claim 2, wherein the diagnosis support information generating operation is performed by generating diagnosis support information for treatment of the patient using the criteria of diagnosis including a standard of treatment policy for the patient whose evaluation value of

peripheral insulin resistance is the largest, a standard of treatment policy for the patient whose evaluation value of hepatic glucose production is the largest, a standard of treatment policy for the patient whose evaluation value of glucose toxicity as a result of being subjected to hyperglycemia for a long time is the largest, and a standard of treatment policy for the patient whose evaluation value of decrease of insulin secretion is the largest.

4.   (Previously Presented) A diagnosis support system for diabetes according to Claim 3, wherein the generated diagnosis support information includes information on the analyzed pathophysiologic condition including the evaluation value and information on exercise therapy, dietetic therapy, and medicinal treatment.

5.   (Cancelled).

6.   (Previously Presented) A diagnosis support program product for enabling a computer to implement a diagnosis support system comprising a computer readable medium, and software instructions, on the computer readable medium, for enabling the computer to perform operations comprising:

allowing input of diagnostic data including clinical testing data and clinical findings of a patient,

analyzing a pathophysiologic condition of diabetes of the patient by comparing the diagnostic data and predetermined criteria of analysis,

generating diagnosis support information by using the diagnostic data and criteria of diagnosis predetermined for each analyzed pathophysiologic condition,

generating a biological model which has a patient-specific biological parameter of diabetes using the entered diagnostic data and the pathophysiologic condition of the patient,

simulating a pathophysiologic condition after treatment by giving the generated biological model a predetermined treatment based on a virtual treatment policy, and

outputting the pathophysiologic condition of the patient, the generated diagnosis support information and the simulated pathophysiologic condition after treatment.

7.   (Previously Presented) A diagnosis support program product for diabetes according to Claim 6, wherein the criteria of analysis comprise determination of peripheral insulin resistance, determination of hepatic glucose production, determination of glucose toxicity as a result of being subjected to hyperglycemia for a long time, and determination of decrease of insulin secretion, and the analyzing operation is performed by analyzing the pathophysiologic condition of diabetes by calculating evaluation value obtained from each criterion of analysis, and analysis, and comparing the obtained evaluation values.

8.   (Previously Presented) A diagnosis support program product for diabetes according to Claim 7, wherein the diagnosis support information generating operation is performed by generating diagnosis support information for treatment of the patient using the criteria of diagnosis including a standard of treatment policy for the patient whose evaluation value of peripheral insulin resistance is the largest, a standard of treatment policy for the patient whose evaluation value of hepatic glucose production is the largest, a standard of treatment policy for the patient whose evaluation value of glucose toxicity as a result of being subjected to hyperglycemia for a long time is the largest, and a standard of treatment policy for the patient whose evaluation value of decrease of insulin secretion is the largest.

9.   (Previously Presented) A diagnosis support program product for diabetes according to Claim 8, wherein the generated diagnosis support information includes information on the analyzed pathophysiologic condition including the evaluation value and information on exercise therapy, dietetic therapy, and medicinal treatment.

10.   (Cancelled).

11.   (Withdrawn) A diagnosis method of a diagnosis support system for diabetes comprising:

a diagnostic data input step for entering diagnostic data including clinical testing data and clinical findings of a patient;

a pathophysiologic condition pattern analyzing step for analyzing the pathophysiologic condition of diabetes of the patient by comparing the diagnostic data and predetermined criteria of analysis;

a diagnosis support information generating step for generating diagnosis support information based on the diagnostic data and criteria of diagnosis predetermined for each analyzed pathophysiologic condition, and

a diagnosis support information output step for outputting information obtained by the pathophysiologic condition pattern analyzing step and the diagnostic information generating step.

12.   (Withdrawn) A diagnosis method of a diagnosis support system for diabetes according to Claim 11, wherein the pathophysiologic condition pattern analyzing step comprises the criteria of analysis including determination of peripheral insulin resistance, determination of hepatic glucose production, determination of glucose toxicity as a result of being subjected to hyperglycemia for a long time, and determination of decrease of insulin secretion, and analyses the pathophysiologic condition of diabetes by calculating evaluation values obtained from each criterion of analysis, and comparing the obtained evaluation values.

13.   (Withdrawn) A diagnosis method of a diagnosis support system for diabetes according to Claim 12, wherein the diagnosis support information generating step generates diagnosis support information for treatment of the patient using the criteria of diagnosis including a standard of treatment policy for the patient whose evaluation value of peripheral insulin resistance is the largest, a standard of treatment policy for the patient whose evaluation value of hepatic glucose production is the largest, a standard of treatment policy for the patient whose evaluation value of glucose toxicity as a result of being subjected to hyperglycemia for a long time is the largest, and a standard of treatment policy for the patient whose evaluation value of decrease of insulin secretion is the largest.

14.   (Withdrawn) A diagnosis method of a diagnosis support system for diabetes according to Claim 12 or 13, wherein the diagnosis support information generated by the diagnosis support information generating step includes information on the analyzed

pathophysiologic condition including the evaluation value and information on exercise therapy, dietetic therapy, and medicinal treatment.

15.   (Withdrawn) A diagnosis method of a diagnosis support system for diabetes according to Claim 11, further comprising:

a biomodel generating step for generating a biomodel by estimating a patient-specific biological parameter of diabetes using the entered diagnostic data and information on the pathophysiologic condition analyzed by the pathophysiologic condition pattern analyzing step, and

a pathophysiologic condition simulation step for estimating the pathophysiologic condition after treatment by giving the generated biomodel a predetermined treatment based on a virtual treatment policy in a simulating manner.

16.   (New) A diagnosis support process for a diabetic patient comprising:

entering diagnostic data including clinical testing data and clinical findings of a patient into a diagnostic data input device;

analyzing a pathophysiologic diabetic condition of the patient by comparing the diagnostic data and predetermined criteria of analysis with a pathophysiologic condition pattern analyzing unit;

generating diagnosis support information based on the entered diagnostic data and criteria of diagnosis predetermined for each analyzed pathophysiologic diabetic condition with a diagnosis support information generating unit;

generating a biological model which has a patient-specific biological parameter of diabetes from the entered diagnostic data and the analysis of the pathophysiologic diabetic condition of the patient,

simulating a pathophysiologic condition after treatment by giving the generated biological model a predetermined treatment based on a virtual treatment policy; and

outputting the analysis of the pathophysiologic diabetic condition of the patient, the generated diagnosis support information and the simulated pathophysiologic condition after treatment on a display device.